

# DSR1

## Digital Sequencer Recorder



**Advanced Operation Manual**  
**Manuel d'approfondissement**  
**Fortsetzungshandbuch**



# **DSR1**

## **Digital Sequencer Recorder**

**Advanced Operation Manual**

# Table of Contents

## Chapter 1

### Using the Memory Disk and Floppy

<b>Disks for Recording .....</b>	<b>1</b>
Using the Memory Disk .....	1
Using Floppy Disks .....	1
Formatting Disks .....	2

## Chapter 2

### Basic Recording .....

<b>Basic Recording .....</b>	<b>4</b>
The [RECORD] Button .....	4
Recording a Song .....	5
Remaining Disk Space .....	6
Setting the Type of Time Display .....	7
Song Titling and Title Editing .....	7
Keyboard Character Map .....	9
Recording with the Metronome .....	10
Changing the Default Song Tempo .....	12
MDR (MIDI Data Recording) Mode .....	14

## Chapter 3

### Recording L/R Songs .....

<b>Recording L/R Songs .....</b>	<b>16</b>
Recording the Left and Right Parts Separately .....	16
Recording with a Left & Right Split Point .....	20
Re-Recording Both Parts Simultaneously .....	22
Re-Recording One Part .....	23
Recording a Pedal Count-In .....	25
Playback with a Pedal Count-In .....	26

## Chapter 4

### Recording Ensemble Songs .....

<b>Recording Ensemble Songs .....</b>	<b>27</b>
Ensemble Song Display .....	27
Recording Ensemble Tracks .....	28
Overdubbing a Track .....	32
Quantizing Notes .....	33

## Chapter 5

### Editing Tracks .....

<b>Editing Tracks .....</b>	<b>36</b>
Editing a Track's Voice & Volume .....	36
Mixing Two Tracks .....	38
Moving a Track .....	40
Copying a Track .....	42
Deleting a Track .....	44
Transposing a Track .....	46
Editing the Piano Track Assignments .....	48

## Chapter 6

### Disk & Song File Utilities .....

<b>Disk &amp; Song File Utilities .....</b>	<b>50</b>
Titling Disks .....	50
Copying Songs Stored on the Memory Disk .....	52
Copying Songs Stored on a Floppy Disk .....	54
Copying All Songs on a Floppy Disk (Disk Copy) .....	56

Deleting a Song .....	58
Rearranging the Song Order (Song Sort) .....	60
Changing the Song Time Display .....	62

## Chapter 7

### Song and Disk Formats and

<b>Compatibility .....</b>	<b>64</b>
Song Format .....	64
Disk Types .....	64
Converting Song Format .....	65
Converting Disk Type .....	67

## Chapter 8

### The DSR1 & MIDI .....

<b>The DSR1 &amp; MIDI .....</b>	<b>70</b>
Start/Stop Control of another MIDI Instrument with the DSR1 .....	70
Sending the Keyboard Data to a MIDI Instrument .....	71
Receiving Data from a MIDI Sequencer .....	75
Sending Song Data to a MIDI Instrument .....	77
Playing Back Import Files .....	78
Summary of the MIDI Out Parameter in a MIDI Setup .....	79

## Chapter 9

### The DSR1 & Computers .....

<b>The DSR1 &amp; Computers .....</b>	<b>81</b>
Connecting to a Computer .....	81
Setting the HOST SELECT Switch .....	82
Playing Back Songs in a Computer .....	83
Recording Songs to a Computer (Sequencer) .....	84
Playing Back More than 16 Channels .....	85
Summary of the MIDI Out Parameter in a Computer Setup .....	86

## Chapter 10

### Resetting the DSR1 .....

## Chapter 11

### Troubleshooting .....

## Chapter 12

### Display Error Messages .....

## Chapter 13

### Glossary .....

## Chapter 14

### DSR1 Specifications .....

## Appendix

<b>MIDI Data Format .....</b>	<b>Appendix 1</b>
	(at end of manual)

# Chapter 1

## Using the Memory Disk and Floppy Disks for Recording

Songs can be recorded and stored on the DSR1's internal Memory Disk or on floppy disks.

You may want to use the Memory Disk when, for example, you do not have a floppy disk handy, or when you want to copy and edit copy-protected PianoSoft songs (copy-protected PianoSoft songs cannot be copied onto floppy disks). Floppy disks may be used, for example, when you want to store many songs or when you want to play back your recorded song data on a Disklavier piano or other instruments.

### Using the Memory Disk

The Memory Disk uses the DSR1 flash memory to record and play back songs. It is internalized and cannot be removed. It has a memory capacity of 1MB.

When recording, if no floppy disk is inserted in the disk drive, the DSR1 automatically records the song onto the Memory Disk.

To title the disk, or to copy, delete, and rearrange songs stored in the Memory Disk, see Chapter 6 "Disk & Song File Utilities".

The Memory Disk is formatted in the SMF (Standard MIDI File) disk format, which gives you the most versatility, as both SMF and E-SEQ songs can be recorded to the Memory Disk. It can, however, be reformatted as an E-SEQ type disk; similarly, a reformatted E-SEQ type Memory Disk can be formatted back to a SMF type disk.

To reformat the Memory Disk, see "Formatting Disks" on the next page. This function will, however, erase all data previously stored on the disk. If you do not want previously stored data to be erased, follow the procedure in "Converting Disk Type" on page 67. See also "Disk Types" on page 64 for more information on disk types.

As a factory presetting, a very short sample song is stored in the Memory Disk for testing purposes.

**Note:** When you reset the DSR1, the entire content of the Memory Disk will be deleted, and the Memory Disk will return to its initial setting (SMF format, sample song included). See Chapter 10 "Resetting the DSR1" for details.

### Using Floppy Disks

The DSR1 uses 3.5 inch MS-DOS 720 Kbyte format 2DD floppy disks and MS-DOS 1.44 Mbyte format 2HD floppy disks. Most floppy disks normally used for personal computers can be used.

To record songs onto a floppy disk, a formatted floppy disk must be inserted in the disk drive before recording. (See "Formatting Disks" on the next page.) If a floppy disk has not been inserted, songs are recorded onto the Memory Disk.

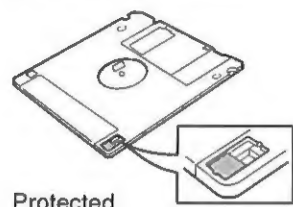
To title the disk, or to copy, delete, and rearrange songs stored on a floppy disk, see Chapter 6 "Disk & Song File Utilities".



## Accidental Erasure Protection

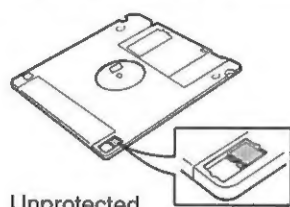
Floppy disks have an erasure protection tab located on the reverse side of the disk, in the bottom right-hand corner. When formatting a disk, make sure that its erasure protection tab is set to “unprotected”.

With the tab window open, formatting and recording are not possible (protected).



Protected

With the tab window closed, formatting and recording are possible (unprotected).



Unprotected

## Formatting Disks

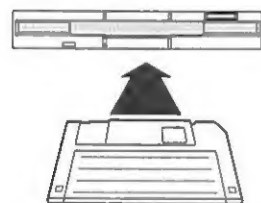
The procedure below allows you to format new unformatted floppy disks and to reformat both the Memory Disk and formatted floppy disks. New floppy disks must be formatted before they can be used with the DSR1.

Formatting a disk erases all the data previously stored on the disk, so always make sure the disk you are going to format does not contain songs you want to keep.

### 1 Insert a floppy disk into the disk drive.

Note: Make sure that the floppy disk's erasure protection tab is set to “unprotected”.

Note: If you want to reformat the Memory Disk, do not insert a floppy disk into the disk drive.



If the disk has not been formatted, the following display appears.

UNFORMATTED DISK

If the disk contains songs, it might be worth checking them to see if there are any you want to keep.

### 2 Press the [FUNC.] button.



The FUNC. indicator lights and the Function menu display appears.

\*Disk \*MIDI Setup →  
\*M-Tune \*Piano Type

### 3 With the ► cursor next to the Disk option, press the [ENTER] button.



The Disk menu display appears.

►Format \*SongDelete  
\*SongCopy \*SongSort →

### 4 With the ► cursor next to the Format option, press the [ENTER] button.

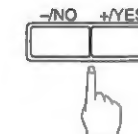


The following display appears.

[Disk Format] (-,+)  
►SMF Type Disk (ENT)

### 5 Use the Dial or the [-/NO] and [+ /YES] buttons to select a disk type: SMF Type Disk or E-SEQ Type Disk. Then press the [ENTER] button.

10 8 6 4 2 0

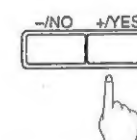


For more information on disk types, see “Disk Types” on page 64.

A display similar to the following appears.

[Disk Format] SURE?  
SMF Type Disk (YES,NO)

### 6 Press the [+ /YES] button to start the disk formatting process.



If you do not want continue with the formatting process, press the [-/NO] button.

### 7 Formatting is complete when the following display appears.

COMPLETE  
PRESS ANY BUTTON

Press any button to return to the normal display.

# Chapter 2

## Basic Recording

This chapter describes the basic procedure for recording a song and other general recording functions such as song titling, metronome recording, changing song tempo, etc.

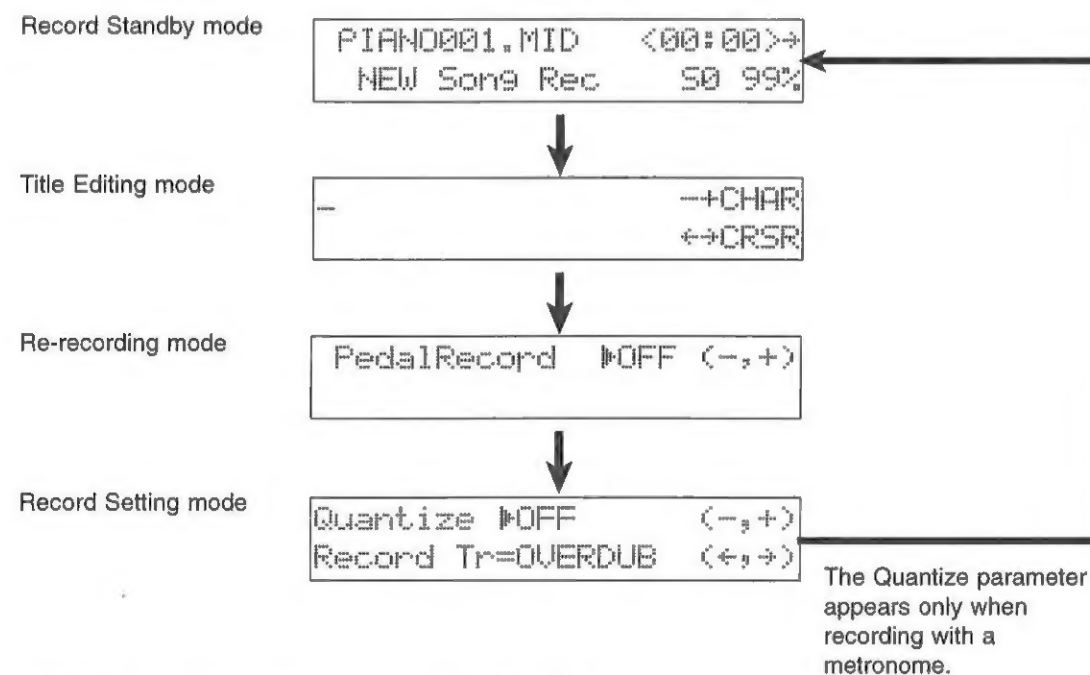
Note: For Disklavier pianos (including MPX100II), MIDI OUT must first be set to KBD OUT. See “MIDI Settings” on page 17 of the *Getting Started & Playback Manual* and your piano’s operating manual for details.

The procedure below only explains the very basics of song recording. For full details about recording, see Chapter 3 “Recording L/R Songs” and Chapter 4 “Recording Ensemble Songs”.

### The [RECORD] Button

The [RECORD] button functions as a toggle switch so that all recording functions, including quantizing and overdubbing, are available for the recording of all tracks. This allows the recording procedures of L/R tracks, rhythm tracks, and other accompanying tracks to follow a basically same flow.

The button toggles the Record Standby mode, title editing mode, re-recording mode, and recording setting mode, as shown below.



A very basic flow of recording songs is described below.

## Recording a Song

You can record your song onto the Memory Disk or onto a floppy disk.

### 1 Insert a formatted floppy disk into the disk drive, as necessary.

If you want to record onto the Memory Disk, make sure there is no floppy disk inserted in the disk drive. Proceed to the next step.

Note: Make sure that the disk’s erasure protection tab is set to “unprotected”.

If the disk has not been formatted, see “Formatting Disks” on page 2.

### 2 Press the [RECORD] button.



The RECORD indicator lights, the PLAY/PAUSE indicator flashes, and the following display appears.

PIANO001.MID <00:00>+  
NEW Song Rec 50 99%

If the disk already contains some songs, a new song number will be created. For example, if the last song to be recorded was No. 6, the new recording will be song No. 7.

→ You can title your new song either now or after recording. See “Song Titling and Title Editing” on page 7.

→ If you want to record a song using the metronome, see “Recording with the Metronome” on page 10.

### 3 Press the [PLAY/PAUSE] button.



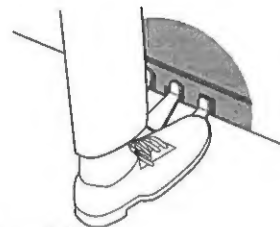
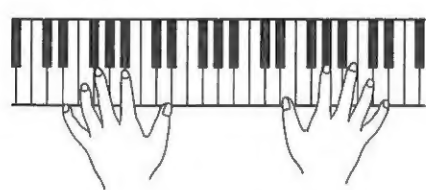
The PLAY/PAUSE indicator stops flashing, and the following display appears.

PIANO001.MID <00:00>  
50 99%

The DSR1 is now ready for you to play.

4

Start playing your song and recording will begin.



Recording will start as soon as you touch a key or press a pedal.

**Note:** If the DSR1 does not begin recording, check that your piano is set to KBD OUT. See "MIDI Settings" on page 17 of the *Getting Started & Playback Manual* and your piano's owner's manual for details.

**Note:** <Piano Type = Clavinova1, Clavinova2>  
When recording SMF songs, L=02 and R=01 are set by default. When recording E-SEQ songs, L=01 and R=02.

**Note:** <Piano Type = Clavinova1>  
If you operate the Clavinova panel during Record Standby mode or during a recording, the setting will be recorded with the song data.

5

When you have finished playing your song, press the [STOP] button.



Your new song is saved to disk.

## Remaining Disk Space

If the [RECORD] button is pressed and the amount of free disk space is less than 10%, the characters "DSK" will flash on the display, as shown below. If your next recording is quite long, it may be worth using a new disk. If you run out of disk space while recording, your song data will not be recorded.

```
PIANO001.MID  <00:00>->
                50 DSK
```

Flashes

During recording, the remaining disk space is displayed as a percentage.

```
PIANO005.MID  <00:00>->
                50 97%
```

This figure will decrease as more data is recorded.

## Setting the Type of Time Display

Song time is indicated in one of two formats: **minutes and seconds** or **measures and beats**. The format used depends on whether or not you use the metronome for recording.

Songs recorded without the metronome will be in minutes and seconds.  
Songs recorded with the metronome will be in measures and beats.

Songs recorded in measures and beats can be converted to minutes and seconds. See "Changing the Song Time Display" on page 62.

## Song Titling and Title Editing

Songs can be titled before or after recording, and the title can be edited at any time.

1

Press the [RECORD] button.



The RECORD indicator lights and the PLAY/PAUSE indicator flashes. The following display appears.

```
PIANO001.MID  <00:00>->
                50 99%
```

If you are titling or editing the title of an existing song, use the [SONG SELECT] buttons to select the song before proceeding. Make sure that the correct song number is selected.

2

Press the [RECORD] button again.

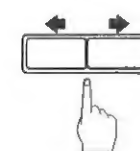


The display cursor appears at the position of the first character in the title, as shown.

```
PIANO001.MID  <00:00>->
  ^             +-+CHAR
  ^             +-+CRSR
```

3

Use the [←] [→] cursor buttons to position the cursor within the title.

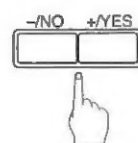
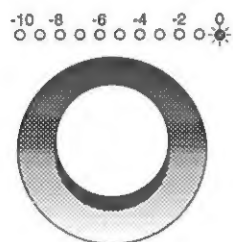


```
PIANO001.MID  <00:00>->
  ^             +-+CHAR
  ^             +-+CRSR
```



4

Use the Dial or the [-/NO] and [+ /YES] buttons to select characters.



Pressing the [ENTER] button or the sustain (right) pedal moves the cursor to the next character.

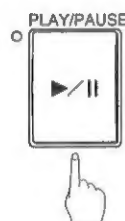
Song titles can be up to 32 characters long (16 per line). The following table shows which characters are available.

(space)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
P	Q	R	S	T	U	V	W	X	Y	Z	a	b	c	d	e
f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u
v	w	x	y	z	!	"	#	\$	%	&	'	(	)	*	+
,	-	.	/	:	;	<	=	>	?	@	1	2	3	4	5
6	7	8	9												

→ Characters can also be entered using the keyboard. See the "Keyboard Character Map" on page 9.

5a

If you are titling a new song, press the [PLAY/PAUSE] button.



Remote Control

Recording will begin.

When you have finished playing your song, press the [STOP] button.

5b

If you are titling or editing an existing song, press the [STOP] button.



Remote Control

The following display appears.

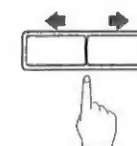
```
Save to disk?  (<,>)
▶SAVE *NEW *CANCEL (ENT)
```

The following table gives a description of each of the options.

Option	Description
SAVE	The song is saved with the new title under the current song number.
NEW	The song with the new title is saved under a new song number. The song with the original title is kept under the previous song number.
CANCEL	The song with the modified title is not saved.

6

Use the [◀] [▶] cursor buttons to select an option, then press the [ENTER] button.

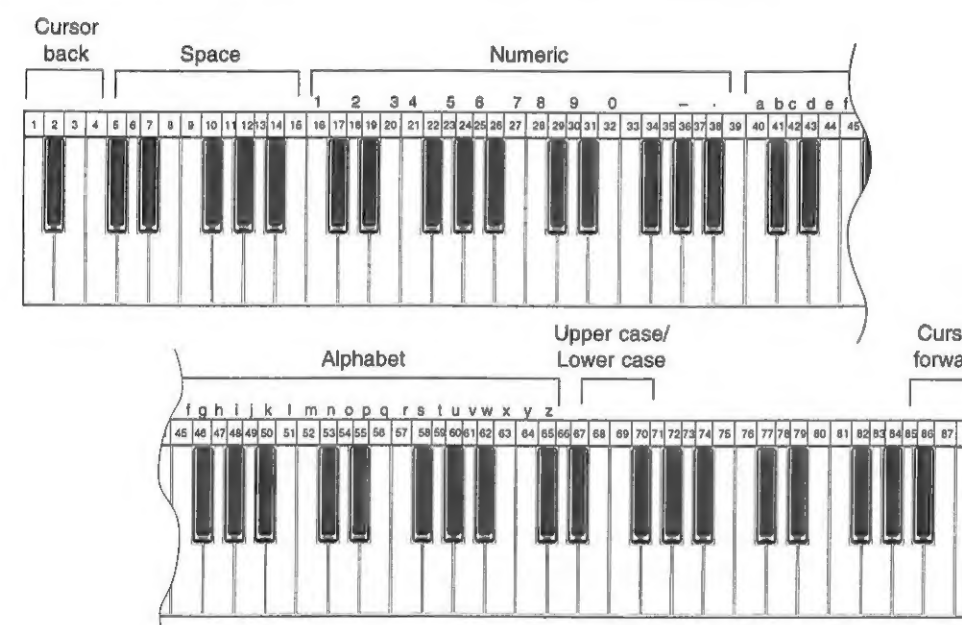


## Keyboard Character Map

The keyboard can be used to enter characters when titling songs and disks. See the character map below.

Note: For Disklavier pianos (including MPX100II), MIDI OUT must first be set to KBD OUT. See "MIDI Settings" on page 17 of the *Getting Started & Playback Manual* and your piano's owner's manual for details.

Note: Not all characters that the DSR1 provides are available from the keyboard. Certain punctuation must be input from the DSR1 front panel. See the character table on page 8.





# Recording with the Metronome

On page 49 of the *Getting Started & Playback Manual* we looked at using the metronome for practice playing. Here we explain how to use the metronome for recording.

Songs recorded with the metronome will be in measures and beats time format.

All metronome parameters are reset when the DSR1 is switched off.

## 1 To set the metronome, press the [METRONOME] button.



The METRONOME indicator lights and the following display appears.

```
==Metronome== (-,+,←,→)
Click=ON 117 >4/4 →
```

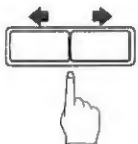
The continuing display shows the following.

```
==Metronome== (-,+,←,→)
←Vol▶ 64 PedalCount=OFF
```

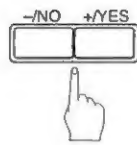
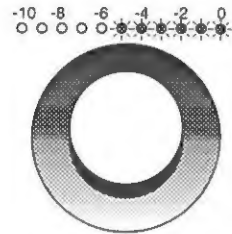
The table below shows which metronome parameters can be set.

Parameter	Range	Default	Notes
Click	ON/OFF	ON	The sound of the metronome can be set on or off. If set to off, the Dial indicators still flash.
Tempo	SMF songs: 30 to 400 bpm E-SEQ songs: 30 to 280 bpm	117	bpm (beats per minute), 1 beat = 1 quarter note (crotchet) See "Song Format" on page 64.
Time Signature	1/4, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4, 8/4, 9/4	4/4	
Volume	10 — 127	64	
Pedal Count	ON/OFF	OFF	A pedal count-in can be recorded before you start playing the piano. See "Recording a Pedal Count-In" on page 25.

## 2 Use the [←] [→] cursor buttons to select a parameter: click, tempo, time signature, volume or pedal count.



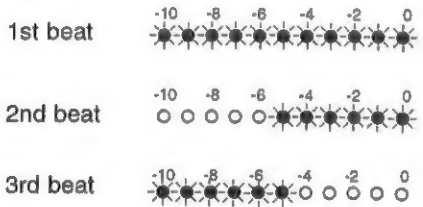
## 3 Use the Dial or the [-/NO] and [+ /YES] buttons to set the parameter.



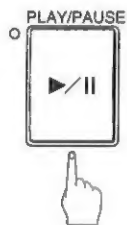
## 4 Press the [RECORD] button to engage the Record Standby mode.



With each beat of the metronome, a short click is produced; this click can be turned on and off as desired. Also, the indicators above the Dial flash. On the first beat of each measure, all the indicators flash. On the remaining beats, the left half and right half of the indicators flash alternately.

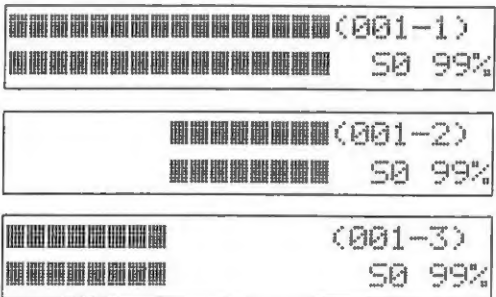


## 5 Press the [PLAY/PAUSE] button.



The metronome starts and recording begins immediately.

The LED volume indicators flash to show the beat and the beat indicator starts counting (001 – 1). The display will cycle as shown below in the first measure.



The display will return to the normal recording display as soon as you start playing.

If recording is paused, the metronome will pause, and then restart when recording is restarted.

# Changing the Default Song Tempo

This function allows you to change the default tempo of a song and save the change to disk. It should not be confused with the playback tempo function described on page 36 of the *Getting Started & Playback Manual*, in which tempo changes are lost when the DSR1 is switched off.


The tempo of a song can be changed many times. This function can be used when recording a very complex song that is difficult to play at a fast tempo. First, record the song at a tempo you can manage, then change the tempo. For example, you could record a difficult left-hand part at a slow tempo, use this function to change the tempo, then record the right-hand part at the normal tempo.

If a song's time format is minutes and seconds, tempo changes are specified as a percentage of the original tempo.


If a song's time format is measures and beats, tempo changes are specified in beats per minute.

- 1


Press the [RECORD] button.


- 2

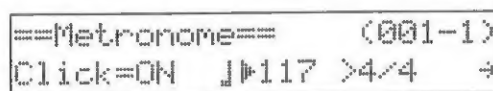
Select the song whose song tempo you want to change using the [SONG SELECT] buttons.


- 3

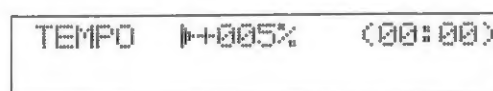
Press the [METRONOME] button.



For measures and beats, the current song tempo (bpm) will be shown.




For minutes and seconds, "000%" will be shown.



If the song's tempo has already been changed, the new value will be shown on the display.


- 4

Use the Dial or the [-/NO] and [+ /YES] buttons to change the tempo.

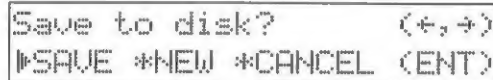


The [-/NO] button decreases the tempo, and the [+ /YES] increases the tempo.  
For **measure and beats**, tempo range is from 30 to 400 bpm for SMF songs (30 to 280 bpm for E-SEQ songs).  
For **minutes and seconds**, tempo range is from -75% to +242% for SMF songs (-75% to +140% for E-SEQ songs).
- 5

Press the [STOP] button to save the tempo change.




The following display appears.



The following table gives a description of each of the options.

Option	Description
SAVE	The song is saved at its new tempo under the current song title.
NEW	The song is saved at its new tempo under a new song number. The original song is kept under the previous song number.
CANCEL	The song with a new tempo is discarded. The original song is kept under the previous song number.
- 6

Use the [←] [→] cursor buttons to select an option, then press the [ENTER] button.



To change the tempo again or to reset the original tempo, repeat steps 1 to 6.

## MDR (MIDI Data Recording) Mode

A song sent to the DSR1 by an external device through the MIDI IN or TO HOST connector can be recorded onto the Memory Disk or a floppy disk. During recording, your piano will play the piano parts.

**Note:** MIDI instruments can be connected to either the MIDI IN connector or the TO HOST connector on the DSR1. However, it is recommended that you set the HOST SELECT switch to MIDI when connecting your MIDI instrument to the MIDI IN connector, and to PC1, PC2, or MAC (depending on your computer type) when connecting your MIDI instrument to the TO HOST connector, for proper results. See "Setting the HOST SELECT Switch" on page 82 for details.

During playback of the song, input from your piano will not be recorded.

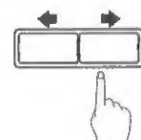
### 1 Press the [RECORD] button.



The RECORD indicator lights, the PLAY/PAUSE indicator flashes, and the following display appears.

PIANO007.MID <00:00>+  
NEW Song Rec 50 99%

### 2 Press the [↔] cursor button or the [VOICE] button.

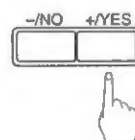
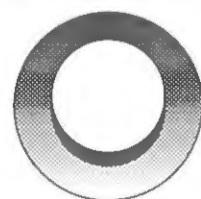


The following display appears.

▶01 001<GrandPro>Vol=100  
+ [ ] -

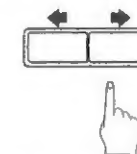
### 3 Use the Dial or the [+ / YES] button until the following display appears.

-10 -8 -6 -4 -2 0 \*



▶MDR MODE REC  
+ [ ] -

### 4 Press the [↔] cursor button.

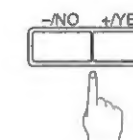


A display similar to the following appears.

L=01 R=02 ES (-,+)  
+ [ ] -

### 5 Use the Dial or the [- / NO] and [+ / YES] buttons to set the piano parts.

-10 -8 -6 -4 -2 0 \*



For E-SEQ songs, L=01 (fixed), and R= can be set to ## or 02.

For SMF songs, L= can be set to tracks 01 to 16, and R= can be set to tracks 01 to 16 other than that selected for L=, and also ##.

### 6 Press the [PLAY/PAUSE] button.



Recording begins.